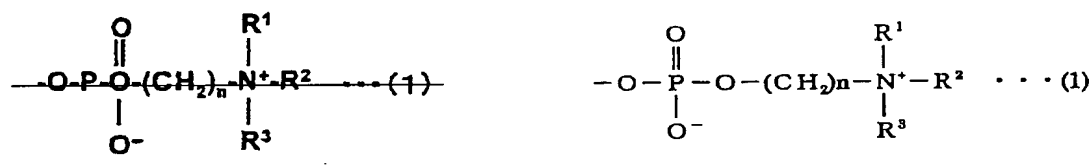


AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

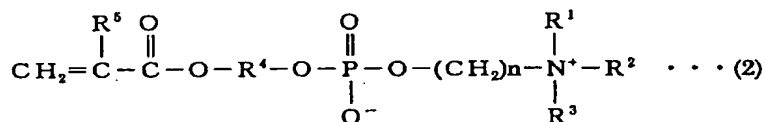
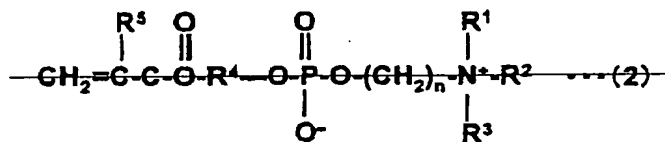
LISTING OF CLAIMS:

1. (currently amended): A vessel for embryoid formation for use in floating culture of embryonic stem cells to form embryoid bodies, comprising a coating layer formed from a compound having a phosphorylcholine-like group represented by the formula (1), on a vessel surface defining a region for floating culture of embryonic stem cells:



wherein R^1 , R^2 , and R^3 are the same or different groups, and each stands for a hydrogen atom, an alkyl or hydroxyalkyl group having 1 to 6 carbon atoms; and n is an integer of 1 to 4.

2. (currently amended): The vessel for embryoid formation of claim 1, wherein said compound having a phosphorylcholine-like group comprises at least one of a homopolymer of monomer (M) represented by the formula (2) having a phosphorylcholine-like group and a copolymer of monomer (M) and another monomer:

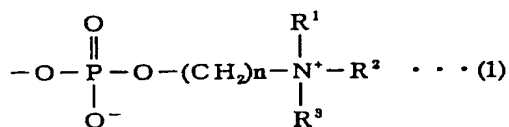
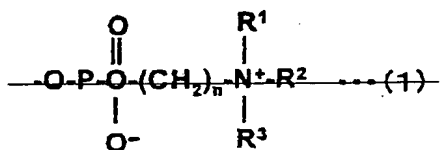


wherein R¹, R², and R³ are the same or different groups, and each stands for a hydrogen atom, an alkyl or hydroxyalkyl group having 1 to 6 carbon atoms, R⁴ stands for an alkyl group having 1 to 6 carbon atoms, R⁵ stands for a hydrogen atom or a methyl group; and n is an integer of 1 to 4.

3. (original): The vessel for embryoid formation of claim 1, wherein a ratio (P/C) of the amount of phosphorus element P to the amount of carbon element C as measured by X-ray photoelectron spectroscopy on the vessel surface having said coating layer formed thereon is 0.002 to 0.3.

4. (currently amended): A method for forming embryoid bodies comprising the steps of:

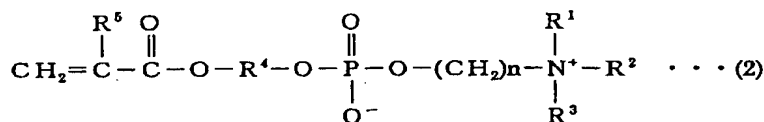
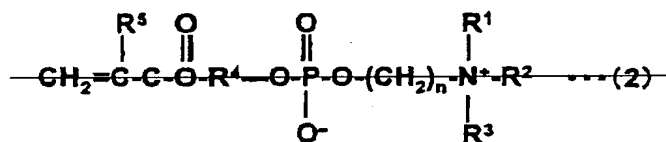
(A) providing a vessel for embryoid formation having a coating layer formed from a compound having a phosphorylcholine-like group represented by the formula (1), on a vessel surface defining a region for floating culture of embryonic stem cells:



wherein R^1 , R^2 , and R^3 are the same or different groups, and each stands for a hydrogen atom, an alkyl or hydroxyalkyl group having 1 to 6 carbon atoms; and n is an integer of 1 to 4; and

(B) floating culturing embryonic stem cells in said vessel for embryoid formation to form embryoid bodies.

5. (currently amended): The method of claim 4, wherein said compound having a phosphorylcholine-like group comprises at least one of a homopolymer of monomer (M) represented by the formula (2) having a phosphorylcholine-like group and a copolymer of monomer (M) and another monomer:



wherein R^1 , R^2 , and R^3 are the same or different groups, and each stands for a hydrogen atom, an alkyl or hydroxyalkyl group having 1 to 6 carbon atoms, R^4 stands for an alkyl group having 1 to 6 carbon atoms, R^5 stands for a hydrogen atom or a methyl group; and n is an integer of 1 to 4.

6. (original): The method of claim 4, wherein a ratio (P/C) of the amount of phosphorus element P to the amount of carbon element C as measured by X-ray photoelectron spectroscopy on the vessel surface having said coating layer formed thereon is 0.002 to 0.3.

7. (canceled).

8. (new): The method of claim 5, wherein said monomer (M) is selected from the group consisting of 2-((meth)acryloyloxy(ethyl-2'-(trimethylammonio) ethylphosphate, 3-((meth)acryloyloxy)propyl-2'-(trimethylammonio)ethylphosphate, 4-((meth)acryloyloxy) butyl-2'-(trimethylammonio)ethylphosphate, 5-((meth)acryloyloxy)pentyl-2'-(trimethylammonio)ethylphosphate, 6-((meth)acryloyloxy)hexyl-2'-(trimethylammonio)ethylphosphate, 2-((meth)acryloyloxy)ethyl-2'-(triethylammonio)ethylphosphate, 2-((meth)acryloyloxy)ethyl-2'-(tripropylammonio) ethylphosphate, 2-((meth)acryloyloxy)ethyl-2'-(tributylammonio)ethylphosphate, 2-((meth)acryloyloxy) ethyl-2'-(tricyclohexylammonio)ethylphosphate, 2-((meth)acryloyloxy)ethyl-2'-(triphenylammonio)ethylphosphate, 2-((meth)acryloyloxy)propyl-2'-(trimethylammonio)ethylphosphate, 2-((meth)acryloyloxy)butyl-2'-(trimethylammonio)ethylphosphate, 2-((meth)acryloyloxy)pentyl-2'-(trimethylammonio)ethylphosphate, and 2-((meth)acryloyloxy)hexyl-2'-(trimethylammonio)ethylphosphate.

9. (new): The method of claim 5, wherein said another monomer is selected from the group consisting of methyl(meth)acrylate, ethyl(meth)acrylate, butyl(meth)acrylate, 2-ethylhexyl(meth)acrylate, lauryl(meth)acrylate, stearyl(meth)acrylate, cyclohexyl(meth)acrylate, benzyl(meth)acrylate, phenoxyethyl(meth)acrylate, polypropylene glycol(meth)acrylate, styrene, methylstyrene, chloromethylstyrene, methyl vinyl ether, butyl vinyl ether, vinyl acetate, vinyl propionate, 2-hydroxyethyl(meth)acrylate, 2-hydroxybutyl (meth)acrylate, and 4-

PRELIMINARY AMENDMENT
PCT/JP2004/0088970
U.S. Application No.: Not Yet Assigned

hydroxybutyl(meth)acrylate, acrylic acid, methacrylic acid, styrenesulfonic acid, (meth)acryloyloxyphosphonic acid, 2-hydroxy-3-(meth)acryloyloxypropyl trimethyl ammonium chloride, (meth)acrylamide, aminoethylmethacrylate, dimethylaminoethyl(meth)acrylate, polyethylene glycol (meth)acrylate, glycidyl (meth)acrylate, and mixtures thereof.

10. (new): The method of claim 5, wherein the weight average molecular weight of said homopolymer and said copolymer is 5000 to 5000000.